

I have a Kill-a-Watt Meter in my hands, now what do I do?

Congratulations! You have checked out a very useful tool from your local library. With this Kill-a-Watt meter you'll be able to measure how your appliances and electronic gadgets consume electricity. What you find might surprise you. More importantly, what you find will help you make more informed decisions about how you use electricity, and ultimately, help you start saving it. That's dollars in your pocket! And all because of this nifty little tool you just found at your library... aren't libraries great?

Here's some information to help you use this nifty tool and understand what it shows you:

What's a kilowatt?

When you use electricity to cook a pot of rice for 1 hour you use 1000 watt-hours of electricity. One thousand watt-hours equals 1 kilowatt-hour, or 1 kWh. Your utility bill usually shows what you are charged for the kilowatt-hours you use. The average residential rate in the United States is 9.4 cents per kWh. A typical U.S. household consumes about 11,000 kWh per year, costing an average of \$1,034 annually.

To find out how much electricity costs in your area, check your recent electricity bill.

How do I use the Meter?

To check to see if you have a phantom appliance (one that uses energy even when it is turned off):

1. Plug the meter into a wall outlet and then plug the appliance into the meter. If the appliance has an off position, it should be off. Some will not have an off position, for example a cell phone charger.
2. Read the meter to see if any wattage is being used.
3. Turn the appliance on.
4. Read the meter again, and check to see if the wattage increases.

You will find that some appliances are using electricity even when they are off or not charging. To save electricity, unplug these appliances when they are not needed.

Calculating Costs

Once you've used the Watt Meter to determine how many Watts your appliance or electronic device is using you can easily calculate the cost per week, month or year for operating it! Here are instructions for using the **P4400 Kill-A-Watt Meter**:

To measure the consumption of a product, you have to leave the appliance plugged into the P4400 Kill-A-Watt for a period of time. The longer you leave the appliance plugged into the Kill-A-Watt, the more accurate the measurement will be. Smaller devices may not need to be left in for more than a day but larger appliances such as refrigerators may need to be measured by the Kill-A-Watt for 1 week or more. This is due to the variables that may affect the efficiency of the appliance. For example, a refrigerator has many factors that can affect the performance or the amount of energy needed and used such as the weather, room temperature, or the amount of food inside.

The last button on the Kill-A-Watt (far right) is the kWh and HOUR button. When you plug your appliance into the Kill-A-Watt, kWh is measured for the amount of time the unit is plugged in. When

you press the kWh button you will get a measurement. When you press the button again, to access the HOUR feature, the time will be given which is the amount of time the unit has been plugged into the Kill-A-Watt. These two measurements, kWh and HOUR, are used to find out the consumption for any period of time.

To find out monthly consumption and pricing, you may use this formula:
(Using an example of 99.7 kWh for 672 hours.)

1. $99.7 \text{ divided by } 672 = 0.1483631$ (average instantaneous kilowatt consumption)
2. $0.1483631 \text{ multiplied by } 720 \text{ (hours in a month)} = 106.82143$
3. $106.82143 \text{ multiplied by } 0.06 \text{ (6 cent rate from electrical co.)} = 6.4092858$
4. Total cost to run this unit for 1 month is \$6.41

Note in step 2, you may replace 720 with whatever time period you are looking for. For example, for 1 week you would substitute 720 with 168 hours. The measurement has to be in HOURS. In Step 3, you have to substitute the 6 cent rate with the rate you are being charged. Your electrical company can supply you with that information.

Good luck! And don't forget, for more energy savings tips and calculators to help you determine even more cost savings potential, go to www.akenergyefficiency.org TODAY!

